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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,288	03/12/2001	Jacobus Haartsen	040071-535	8551
7590	09/20/2004			EXAMINER HO, DUC CHI
Ronald L. Grudziecki BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404			ART UNIT 2665	PAPER NUMBER

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/804,288	HAARTSEN, JACOBUS	
	<b>Examiner</b>	<b>Art Unit</b>	2665
Duc C Ho			A

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 March 2001.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-31 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____.<br>A | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

***Detailed Action***

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable Wilson J.Y. et al. ("Inside Bluethooth part I and open Spec. for Wireless Communication" – IDS record), hereinafter referred to as Willson, in view of Pritty et al. (US 4,819,229), hereinafter referred to as Pritty

Regarding claim 1, Wilson discloses a Bluetooth technology for wireless communication and networking between PCs, mobile phones and other devices, see page 62-left column. According to Wilson, a master device requires determination of a channel (hopping sequence) and phase (timing offset) that shall be used by all radios (the slave units) that need to communicate, wherein a Bluetooth channel comprising of a defined hopping sequence, by jumping from one RF channel to another in a pseudorandom sequence, for a period of time or slot, see page 65. In Wilson the SCO (Synchronous Connection-Oriented links) protocol enables the guaranteed bandwidth through a reservation of a particular number of slots in the Bluetooth channel, see page 66, right column (corresponding to allocating reserved time slots to communication units based on QOS requirements associated with the communication units).

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Wilson however, doesn't teach (1) the pseudo-token is automatically assigned to a communication unit during its reserved time slot; (2) assigning priority levels to communication units transmitting on the communication channel; and (3) interrupting the pseudo-token based channel access scheme when a communication unit's reserved time slot is overridden by a transmission from a higher priority communication unit.

One skill in the art would recognize the advantage of (1) implementing an access scheme assigning a token to a communication unit during its reserved time slot, (2) assigning priority levels to communication units transmitting on the communication channel, and (3) interrupting the token based channel access scheme when a communication unit's reserved time slot is overridden by a transmission from a higher priority communication unit such that to permit higher priority message to obtain access to the shared transmission medium even when a lower priority message is being transmitted in the medium.

Pritty discloses a local area network priority control system. The network of Pritty employs token passing to terminals with different priorities (fig. 4, col. 7, lines 6-53), including priority control channel (fig. 5, col. 7-line 52 to col. 8-line 6). The local area network system permits host computers having a higher priority than the priority of the circulating token to obtain access to the ring and suspend transmission of the message on the ring by utilizing an extra control channel, designated "priority interrupt control channel" (PICC) so that any node can request a less important transmission to be suspended using a within packet interrupt, see col. 6, lines 49-57.

It would have been obvious to one of ordinary skill in the art, at the time invention was made, to employ the teaching of Pritty as described above into the system of Wilson such that that to permit a device with higher priority to obtain access to the shared transmission medium

even when another device with lower priority having data being transmitted in the medium in order to provide a multiple priority system, and to solve contention resolution in an ad hoc wireless connectivity.

Regarding claim 2, Wilson discloses the receiving step at a master unit, an access request from a slave unit.

Regarding claim 3, Wilson's system is capable of allocating a maximum packet size to a slave unit based on the QOS request.

Regarding claim 4, Wilson's system is capable of assigning time offsets between the reserved time slots allocated to the slave units.

Regarding claim 5, please see the rejection of claim 1. Pritty's terminals is able to receive a priority level based on the request.

Regarding claims 6-7, please see the rejection of claim 1. In Pritty the local area network system permits host computers having a higher priority than the priority of the circulating token to obtain access to the ring and suspend transmission of the message on the ring by utilizing an extra control channel, designated "priority interrupt control channel" (PICC) so that any node can request a less important transmission to be suspended using a within packet interrupt

Regarding claims 8, 16, and 24, these claims have similar limitations as claim 1. Therefore, they are rejected under Wilson-Pritty for the same reasons set forth in the rejection of claim 1.

Regarding claims 9, 17, and 25, these claims have similar limitations as claim 2. Therefore, they are rejected under Wilson-Pritty for the same reasons set forth in the rejection of claim 2.

Regarding claims 10, 18, and 26, these claims have similar limitations as claim 3. Therefore, they are rejected under Wilson-Pritty for the same reasons set forth in the rejection of claim 3.

Regarding claims 11, 19, and 27, these claims have similar limitations as claim 4. Therefore, they are rejected under Wilson-Pritty for the same reasons set forth in the rejection of claim 4.

Regarding claims 12, 20, and 28, these claims have similar limitations as claim 5. Therefore, they are rejected under Wilson-Pritty for the same reasons set forth in the rejection of claim 5.

Regarding claims 13, 21, and 29, these claims have similar limitations as claim 6. Therefore, they are rejected under Wilson-Pritty for the same reasons set forth in the rejection of claim 6.

Regarding claims 14, 22, and 30, please see the rejection of claim 1. In Wilson the master unit is able to pass the token to the slave unit which had its transmission time slot overridden.

Regarding claims 15, 23, and 31, these claims have similar limitations as claim 7. Therefore, they are rejected under Wilson-Pritty for the same reasons set forth in the rejection of claim 7.

### *Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sun et al. (US 6,751,213) is cited to show system and method for providing quality of service and contention resolution in ad-hoc communication systems, which is considered pertinent to the claimed invention.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner



Duc Ho

09-14-04